conservatisms of the past to become aggressively civilizing, if not, indeed, cosmopolitan or imperial, with all that these new national movements involve, I appeal to the science of surgery and the brilliant array of American operators on behalf of the human brain, the central nervous system, or the cerebro-spinal axis. I make this appeal the more earnestly, knowing as I do, that thousands of the flower and promise of our manhood must fall before the foes upon whom we must move in the sacred cause of humanity.

Modern warfare inflicts ten wounds about the head and face to one below the waist. The field for operative procedure and therapeutic study for the military surgeon is above the waist in large degree, and in this the head and face prevail over all others, and the reasons for this are plain, when we consider the manner of offense and defense. The military surgeon of today has opportunity long and wide for making himself an important factor in the march of the world in behalf of civilization and in the interests of humanity.

AN INQUIRY INTO THE NORMAL ANGLE OF JUNCTION OF THE NECK, WITH THE SHAFT OF THE FEMUR.

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In the examination of this subject, an effort has been made to confine the inquiry to specimens of the male bone fully developed, free from the results of injury or disease, and ranging in age as nearly as could be determined from twenty-five to forty years.

These extremes of age are selected arbitrarily, for between these periods of life the bone may be said to be at the height of its development—it has neither the deficiencies of incomplete growth or the defects of degeneration incident to age; it may be presumed therefore to be typical in all of its detail. As is well known, two angles are formed by the neck of the femur with the shaft of the bone, the upper being an acute angle, while the lower is an obtuse angle and gentle curve from the lower portions of the neck to the internal border of the shaft with which it becomes continuous. The arrangement of the bony fiber of the neck and the position of the neck itself upon the shaft is undoubtedly for minimizing the strain of the bodily weight above, in its transmission to the upper extremity of the bone below. These facts are now generally well recognized. It will also not have escaped the notice of the observer that the trochanter minor acts as an additional and powerful support to the neck of the femur upon its posterior and internal aspects, assisting greatly in transmitting the bodily weight. Again the perpendicular diameter of the base of the neck is greatly increased, as compared with the transverse measurements of the bone at the same place, also for the natural purpose, quite evidently of compensating for the change in direction of the strain of the bodily weight by increased strength and quantity of bony structure, the change in direction being from a perpendicular line to an angular line passing from the cup-shaped cotyloid cavity to the globe-shaped hemispherical upper extremity of the femur.

These circumstances, different in minor degree in different individuals, alter the angle of junction at the neck with the shaft somewhat, but in a way that makes it quite evident that there is a maximum and minimum degree of angularity between which extremes the angle of junction presented by any given specimen of the bone may be said to be normal.

In order to arrive at conclusions worthy of credence some definite method of anatomic measurement dependent upon fixed anatomic relations should be devised. When these relations varied in any given specimen of the bone which I examined, it was noticed that the angle of junction also varied in a like proportional degree, but always within the extremes of angularity above alluded to as probably being normal. In selecting specimens of the bone from which measurements were made for the purposes of this paper; those bones were chosen which presented on the anterior surface a large venous foramen—usually much larger than its neighbors—which was placed immediately below the spiral line and in a position which seemed to be the anatomic center of the shaft. Through this opening a perpendicular line was projected, which was also parallel to the axis of the shaft as nearly as could be determined. The position of the foramen in the specimens selected seemed also to be placed about one-sixth of an inch below the anatomic center of the neck of the bone, for the reason that a line projected through the center of the neck and representing its axis—as nearly as could be determined—intersected the line of the axis of the shaft at one-sixth of an inch above the foramen, thus establishing perhaps the true angles by which a bone should be measured. The two angles established are an upper acute and a lower obtuse angle. After establishing these angles and marking them upon the several bones examined by use of ink, they were carefully examined and measured with an angleometer, an instrument of precision for exact measurements of this character. In some twenty-five or thirty specimens examined—a number not sufficient to establish fixed rules, however—the minimum acute angle measured was 38 degrees, while the maximum acute angle was 52 degrees, the average angle being 47 degrees and 30 minutes, there being a few minutes less or additional as the case might be in many of the bones examined. When the place of the foramen varied from the position of one-sixth of an inch below the spiral line, but still maintained what seemed to be the anatomic centers of the neck and shaft with reference to that line, it was noticed that the acuity of the angle became less, thus if the foramen was placed at one-fifth or one-fourth of an inch below the line, the acuity of the lesser angle approached the minimum angle of 38 degrees, which has been named as the minimum angle noticed in this series of specimens. It is, of course, unnecessary to remark that the greater or obtuse angle is to be found by subtracting the measurements of the acute angle from the measurement of the axis of the shaft of the femur, which was assumed to be 180 degrees.

As is indicated by the title of this brief paper, its purpose is to record merely the results of an inquiry. The method adopted to attain these results is offered to the Section upon its merit for what it is worth.

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